

## INTERNATIONAL SEARCH REPORT

|                                                 |
|-------------------------------------------------|
| International application No.<br>PCT/US01/32028 |
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**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) :G06F 9/45, 17/80; G06K 9/48, 69;  
US CL :707/3; 717/11; 382/225

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 707/3; 717/11; 382/225

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EAST

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                                                                                         | Relevant to claim No. |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| Y,E       | US 6,314,420 B1 (LANG et al.) 06 November 2001, col. 4, lines 5-41, col. 9, lines 1-67, 14, lines 54-67, col. 17, lines 58-67, col. 19, lines 23-28, col. 20, lines 25-67. | 1-24                  |
| A         | US 4,937,747 A (KOLLER) 26 June 1990.                                                                                                                                      | 1-24                  |
| A,E       | US 6,307,965 B1 (AGGARWAL et al.) 23 October 2001.                                                                                                                         | 1-24                  |
| A,P       | US 6,226,792 B1 (GOIFFON et al.) 01 May 2001.                                                                                                                              | 1-24                  |
| Y         | US 5,859,929 A (ZHOU et al.) 12 January 1999, col. 6, lines 5-12, col. 9, lines 50-67, col. 10, lines 1-10, col. 11, lines 14-33.                                          | 1-24                  |

Further documents are listed in the continuation of Box C.  See patent family annex.

|                                          |                                                                                                                                                                     |                                                                                                                                                                                                                                              |
|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| * Special categories of cited documents. | "T"                                                                                                                                                                 | later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention                                              |
| "A"                                      | document defining the general state of the art which is not considered to be of particular relevance                                                                |                                                                                                                                                                                                                                              |
| "E"                                      | earlier document published on or after the international filing date                                                                                                | "X"                                                                                                                                                                                                                                          |
| "D"                                      | document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) | document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone                                                                     |
| "O"                                      | document referring to an oral disclosure, use, exhibition or other means                                                                                            | "Y"                                                                                                                                                                                                                                          |
| "P"                                      | document published prior to the international filing date but later than the priority date claimed                                                                  | document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art |
|                                          | "R"                                                                                                                                                                 | document member of the same patent family                                                                                                                                                                                                    |

Date of the actual completion of the international search

17 DECEMBER 2001

Date of mailing of the international search report

10 JAN 2002

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**INTERNATIONAL SEARCH REPORT**International application No.  
PCT/US01/32028**C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|------------------------------------------------------------------------------------|-----------------------|
| A         | US 5,799,276 A (KOMISSARCHIK et al.) 25 August 1998.                               | 1-24                  |